

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

614 a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ ~~$\text{Ba}(\text{PO}_3)_2$~~ , from 10 to 60 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ ~~$\text{Al}(\text{PO}_3)_3$~~ , from 10 to 60 percent;

a fluoride, BaF_2 ~~BaF_2~~ , from 10 to 75 percent; and

a rare earth dopant.

Claim 2 (currently amended): A fluorophosphates glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ ~~$\text{Ba}(\text{PO}_3)_2$~~ , from 10 to 60 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ ~~$\text{Al}(\text{PO}_3)_3$~~ , from 10 to 60 percent;

a fluoride, $\text{R}_m\text{R}_n\text{F}_x$, from 10 to 75 percent, selected from the group of:

BaF_2 , CaF_2 , MgF_2 , PbF_2 and BiF_3 ; and

a dopant.

Claim 3 (canceled) ✓

Claim 4 (original): The glass as in claim 2 wherein the dopant is selected from the group of: the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr); an oxide of manganese (Mn); and mixtures thereof.

Claim 5 (original): The glass as in claim 4 wherein the dopant is selected from the oxides of the rare earth elements.

Calim 6 (original): The glass as in claim 4 wherein the dopant on a mol percent basis is 2 to 15 percent.

Claim 7 (original): The glass as in claim 4 wherein the dopant is selected from the fluorides of the rare earth elements.

Claim 8 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, from 10 to 60 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, from 10 to 60 percent;

a fluoride, BaF_2 BaF_2 , from 10 to 75 percent; and

a dopant, from 2 to 15 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr);

an oxide of manganese (Mn); and mixtures thereof.

Claim 9 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, from 0 to 100 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, from 0 to 100 percent;

a fluoride, BaF_2 BaF_2 , from 5 to 30 percent; and

a dopant, from 2 to 15 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr);

an oxide of manganese (Mn); and mixtures thereof.

Claim 10 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, from 0 to 45 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, from 5 to 30 percent;

a fluoride, BaF_2 BaF_2 , from 45 to 75 percent; and

a dopant, from 2 to 15 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr);

an oxide of manganese (Mn); and mixtures thereof.

Claim 11 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, approximately 10 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, approximately 18 percent;

a fluoride, BaF_2 BaF_2 , approximately 70 percent; and

a dopant, approximately 2 percent:

of the oxide of neodymium (Nd).

Claim 12 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, approximately 10 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, approximately 18 percent;

a fluoride, BaF_2 BaF_2 , approximately 70 percent; and

a dopant, approximately 2 percent:

of the oxide of erbium (Er).

Claim 13 (withdrawn)

Claim 14 (withdrawn)

Claim 15 (withdrawn)

Claim 16 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, from 10 to 60 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, from 10 to 60 percent;

a fluoride, BaF_2BaF_2 + RF_x , from 10 to 90 percent; and
a dopant.

915 Claim 17 (currently amended): The glass as in claim 16 wherein the fluoride RF_x is one of the group of:

~~CaF_2CaF_2 , MgF_2MgF_2 , PbF_2PbF_2 and BiF_3BiF_3 .~~

Claim 18 (original): The glass as in claim 16 wherein the dopant is selected from the group of:
the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm),
terbium (Tb), holmium (Ho), samarium (Sm), europium (Eu), praseodymium (Pr); an oxide of
manganese (Mn); and mixtures thereof.

Claim 19 (original): The glass as in claim 18 wherein the dopant is selected from the oxides of
the rare earth elements.

Claim 20 (original): The glass as in claim 18 wherein the dopant on a mol percent basis is 2 to
15 percent.

Claim 21 (original): The glass as in claim 18 wherein the dopant is selected from the fluorides
of the rare earth elements.

Claim 22 (currently amended): A fluorophosphate glass formed from a composition
comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2\text{Ba}(\text{PO}_3)_2$, from 5 to 60 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3\text{Al}(\text{PO}_3)_3$, from 5 to 60 percent;

916 a fluoride, BaF_2BaF_2 + RF_x wherein RF_x is selected from the group of CaF_2CaF_2 ,
 MgF_2MgF_2 , PbF_2PbF_2 and BiF_3BiF_3 , from 10 to 90 percent; and

a dopant, from 2 to 20 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium
(Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu);
an oxide of manganese (Mn); and mixtures thereof.

Claim 23 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, from 0 to 100 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, from 0 to 100 percent;

a fluoride, BaF_2 BaF_2 + RFx wherein RFx is selected from the group of CaF_2 CaF_2 , MgF_2 MgF_2 , PbF_2 PbF_2 and BiF_3 BiF_3 , from 5 to 90 percent; and

a dopant, from 2 to 20 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu);

an oxide of manganese (Mn); and mixtures thereof.

Claim 24 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, from 0 to 45 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, from 5 to 30 percent;

a fluoride, BaF_2 BaF_2 + RFx wherein RFx is selected from the group of CaF_2 CaF_2 , MgF_2 MgF_2 , PbF_2 PbF_2 and BiF_3 BiF_3 , from 45 to 90 percent; and

a dopant, from 2 to 20 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu);

an oxide of manganese (Mn); and mixtures thereof.

Claim 25 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, approximately 10 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, approximately 18 percent;

a fluoride, BaF_2 BaF_2 + RFx wherein RFx is selected from the group of CaF_2 CaF_2 ,

MgF_2MgF_2 , PbF_2PbF_2 and BiF_3BiF_3 , approximately 90 percent; and

a dopant, approximately 5 percent:

of the oxide of neodymium (Nd).

Claim 26 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate, $\text{Ba}(\text{PO}_3)_2$ $\text{Ba}(\text{PO}_3)_2$, approximately 10 percent;

a metaphosphate, $\text{Al}(\text{PO}_3)_3$ $\text{Al}(\text{PO}_3)_3$, approximately 18 percent;

a fluoride, BaF_2 BaF_2 + RF_x wherein RF_x is selected from the group of CaF_2 CaF_2 ,

MgF_2MgF_2 , PbF_2PbF_2 and BiF_3BiF_3 , approximately 90 percent; and

a dopant, approximately 10 percent:

of the oxide of erbium (Er).

Claim 27 (withdrawn)

Claim 28 (withdrawn)

Claim 29 (withdrawn)